

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:  
a substrate including an electrode electrically connected to at least one integrated circuit;  
an external terminal electrically connected to the electrode;  
a light transmissive insulation layer disposed on the external terminal side of the substrate; and  
a mark provided on the substrate and covered by the light transmissive insulation layer so as to be visible through the insulation layer.
2. The semiconductor device according to claim 1, the substrate being a semiconductor substrate, and the integrated circuit being formed on the semiconductor substrate.
3. The semiconductor device according to claim 2, further comprising:  
a resin layer formed on the side of a semiconductor substrate where the electrode is formed, avoiding the location of the electrode; and  
an interconnection layer extending from the electrode to an upper surface of the resin layer and including at least one land formed on the resin layer;  
the external terminal being provided on the land; and  
the insulation layer being formed to cover the interconnection layer with at least a part of the external terminal exposed.
4. The semiconductor device according to claim 3, the mark being provided on the resin layer.
5. The semiconductor device according to claim 3, further comprising:  
a passivation film provided on the semiconductor substrate,  
the mark being provided on the passivation film.
6. The semiconductor device according to claim 3, the mark being made of the same material as at least a part of the material which the interconnection layer is made of.
7. The semiconductor device according to claim 3, the mark being provided on an area not in contact with the interconnection layer.
8. The semiconductor device according to claim 3, the interconnection layer having a plurality of lands including a first land having a shape incorporating the mark and a second land having a shape different from the shape of the first land.
9. The semiconductor device according to claim 1,  
the external terminal being a solder ball; and

the insulation layer being a solder resist.

10. The semiconductor device according to claim 1, the semiconductor substrate being a semiconductor chip.

11. The semiconductor device according to claim 10, the mark being provided on at least one of the four corners of the semiconductor chip.

12. The semiconductor device according to claim 1, the semiconductor substrate being a semiconductor wafer including the integrated circuit for each of plural areas.

13. A circuit board comprising:

a semiconductor device according to claim 1 mounted thereon.

14. An electronic apparatus, comprising

a semiconductor device according to claim 1.

15. A method of mounting a semiconductor device onto a circuit board according to claim 1, comprising:

determining a mounting orientation of the semiconductor device by recognizing the mark through the insulation layer.

16. A method of manufacturing a semiconductor device, comprising:

providing a mark on one side of a substrate having an electrode electrically connected to an integrated circuit;

providing an external terminal electrically connected to the electrode on the mark side of the substrate; and

providing a light transmissive insulation layer to cover the mark.